

## REMARKS

The Official Action of September 9, 2004 has been carefully considered and reconsideration of the application as amended is respectfully requested.

The recitations formerly in claim 3 have been incorporated into claim 1, and claims 2 and 3 have been canceled. New claims 67-68 have been added more completely to define the subject matter which Applicants regard as their invention. Support for the recitations in these claims appears, for example, in the examples appearing on pages 90-93 of the specification, and specifically Examples 17-19 (see Table 1 on page 92), wherein it is shown that an after-treatment with a treatment agent comprising the recited sulfur compounds results in an improved effect in both the light resistance and gas resistance of the recorded matter in the evaluations described on pages 90-91.

The claims stand rejected under 35 USC 102(b) as allegedly being anticipated by the references cited at paragraphs 6-9 of the Official Action. However, the references cited at paragraphs 7-9 have not been applied against the recitations formerly in claim 3, which have now been incorporated into claim 1. Accordingly, the amendment to the claims is respectfully believed to remove the bases for the rejections in these paragraphs. With respect to the rejection in view of the Shores reference cited at paragraph 6 of the Official Action, Applicants respectfully traverse this rejection.

The claimed invention is based upon Applicants' finding that treatment of the surface of recorded matter with a treatment agent containing at least one of the claimed sulfur compounds provides the treated surface with improved characteristics, such as improved light resistance, gas resistance, water resistance, etc. (see specification at paragraph bridging pages 12 and 13). This is shown by the Examples in the specification, as discussed above.

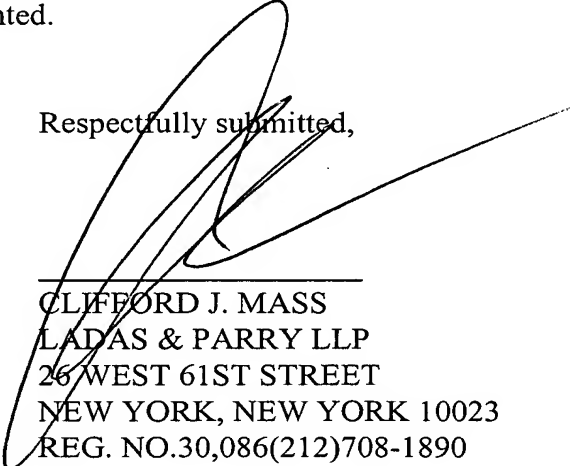
The claimed invention requires that the recited recorded matter be treated by a sulfur compound selected from the recited Markush group. The Markush group includes "derivatives" of the other recited sulfur compounds, which by dictionary definition includes only compounds derived or obtained from the other recited compounds and containing essential elements of the other (parent) compounds (see American Heritage Dictionary definition submitted herewith). In contrast, the cited Shores reference describes only treatment agents containing siloxane polyelectrolytes; it does not show or suggest treatment agents comprising the recited sulfur compounds or derivatives thereof.

The Examiner pointed out that according to Shores, "The OP varnish contains a thio derivative, an example of which is thiourea (3:26-30)." However, the actual citation is that "If an atom of oxygen in the reactive functional group of one of the ingredients is replaced by an atom of sulfur, the reaction product becomes a thio derivative, such as thiocarbamate, thiourea or thioester."

Here, "an atom of oxygen in the reactive functional group of one of the ingredients" is oxygen in the functional group of the oligomer A, the monomer B or the optionally monomer C (see Shores at 2:60-3:11). In other words, Shores' thiourea is the siloxane polyelectrolyte containing the thiourea; it is not one of the recited sulfur compounds or a derivative of any one of such compounds.

In view of the above, it is respectfully submitted that the cited art does not show or suggest all of the claim limitations and is insufficient to set forth a *prima facie* case of alleged anticipation or obviousness. Accordingly, it is respectfully submitted that the prior art rejections of record have been overcome and that the application is now in allowable form. An early notice of allowance is earnestly solicited and is believed to be fully warranted.

Respectfully submitted,



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CLIFFORD J. MASS  
LADAS & PARRY LLP  
26 WEST 61ST STREET  
NEW YORK, NEW YORK 10023  
REG. NO.30,086(212)708-1890

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1930's. [After the Great Depression, a period of severe economic hardship during the 1930's.]

**de-pres-sive** (di-prēs'iv) *adj.* 1. Causing depression. 2. Of or pertaining to psychological depression. —**de-pres'sive-ly** *adv.* —**de-pres'sive-ness** *n.*

**de-pres-sor** (di-prēs'ar) *n.* 1. Something that depresses or is used to depress. 2. A depressor nerve. 3. Any of several muscles that cause depression or contraction of a part. 4. An instrument used to depress a part.

**depressor nerve** *n.* A nerve that lowers arterial blood pressure.

**de-pres-surize** (dē-prēsh'ā-rīz') *tr.v.* -ized, -izing, -izes. To release from pressure. —**de-pres'suriza-tion** *n.*

**de-priv-al** (di-prī'vāl) *n.* Deprivation.

**de-priv-a-tion** (dē-prī'vā-shən) *n.* 1. a. The act of depriving; loss. b. The condition of being deprived; privation. 2. A removal of rank or office.

**de-priv-e** (di-prīv') *tr.v.* -priv-ed, -priv-ing, -priv-es. 1. To take something away from; dispossess. *Redistricting deprived the state of two congressional seats.* 2. To keep from possessing or enjoying; deny. *He was deprived of his just acclaim.* 3. To remove from office. [ME *depriven* < OFr. *depriver* < Med. Lat. *deprivare*: Lat. *de-*, completely + Lat. *privare*, to rob < *privus*, without.] —**de-priv-a-ble** *adj.*

**de-priv-ed** (di-prīvd') *adj.* Characterized by deprivation, esp. of economic or social necessities.

**de-pro-gram** (dē-prō'grām, -gram) *tr.v.* -grammed, -gram-ming, -grams or -gram-ing, -grams. To counteract or try to counteract the effect of an indoctrination, esp. a religious indoctrination. —**de-pro-gram-mer** *n.*

**depth** (dēpth) *n.* 1. The condition or quality of being deep.

2. a. The extent, measurement, or dimension downward, backward, or inward. b. The linear measurement or sense of distance from an observation point, as perspective in painting. 3. Often *depths*. A deep part or place. *in the depths of the forest.* 4. The most profound or intense part or stage: *the depth of despair.* 5. The severest or worst part: *in the depth of winter.* 6. A bad or deteriorated condition: *Production has fallen to incredible depths.* 7. Intellectual complexity or penetration; profundity: *a novel of great depth.* 8. The range of one's understanding or competence: *beyond one's depth.* 9. The degree of richness or intensity: *depth of color.* 10. Lowness in pitch. —**Idiom.** In depth. With thoroughness: *a study in depth.* [ME *depthe* < *dep*, deep.]

**depth charge** *n.* A charge designed for explosion under water, used esp. against submarines.

**depth perception** *n.* Perception of spatial relationships, esp. of distances between objects, in three dimensions.

**depth psychology** *n.* 1. Psychology of the unconscious, esp. as distinguished from the psychology of conscious behavior. 2. Psychoanalysis.

**de-pu-rate** (dēp'yū-rāt') *tr. & intr.v.* -rat-ed, -rat-ing, -rates. To cleanse or purify or become cleansed or purified. [Med. Lat. *depurare*, *depurat*: Lat. *de-*, away + *purus*, pure.] —**de-pu-ra-tion** *n.* —**de-pu-ra-tor** *n.*

**de-pu-ta-tion** (dēp'yū-tā-shən) *n.* 1. a. The act of deputing. b. The state of being deputed. 2. A person or group appointed to represent another or others; delegation.

**de-pute** (di-pyūt') *tr.v.* -put-ed, -put-ing, -put-es. 1. To appoint or authorize as an agent or representative. 2. To assign (authority or duties) to another; delegate. [ME *deputen* < OFr. *deputer* < LLat. *deputare*, to allot < Lat. *de-*, to consider < *de-*, apart, away + *putare*, to trim, arrange.]

**de-pu-tize** (dēp'yū-tīz') *tr. & intr.v.* -tized, -tizing, -tizes. To appoint as or serve as a deputy. —**de-pu-ti-za-tion** *n.*

**de-pu-ty** (dēp'yū-tē) *n., pl. -ties.* 1. A person named or empowered to act for another. 2. An assistant exercising full authority in the absence of his superior and equal authority in emergencies. 3. A representative in a legislative body in certain countries. [ME *depute* < OFr. < p.p. of *deputare*, to deputate.]

**de-rac-i-nate** (dē-rās'ā-nāt') *tr.v.* -nat-ed, -nat-ing, -nates. To pull out by or as if by the roots; uproot. [Fr. *déraciner* < OFr. *déraciner*: *des-*, apart (< Lat. *dis-*) + *racine*, root < LLat. *radicina* < Lat. *radix*.] —**de-rac-i-na-tion** *n.*

**de-rail** (dē-rāl') *intr. & tr.v.* -rall-ed, -rall-ing, -ralls. 1. To run off course to run off the rails. 2. To be thrown or throw off course. [Fr. *dérailer*: *dé-*, off (< Lat. *de-*) + *rail*, rail < E.] —**de-rail-ment** *n.*

**de-rail-leur** (di-rāl'lar) *n.* A gear mechanism on a bicycle that changes bicycle gear ratio by moving the chain from one sprocket to another. [Fr. *dérailleur*, to become derailed: *dé-*, off (< Lat. *de-*) + *rail*, rail < E.]

**de-range** (di-rānj') *tr.v.* -rang-ed, -rang-ing, -rang-es. 1. To disturb the order or arrangement of. 2. To disturb the normal condition or functioning of. 3. To make insane. [Fr. *déranger* < OFr. *desrengrer*: *des-*, apart (< Lat. *dis-*) + *reng*, line, of Germanic orig.] —**de-range-ment** *n.*

**der-by** (dūr'bē, Brit. dār'bē) *n., pl. -bies.* 1. Any of various annual horse races, esp. for three-year-olds. 2. A formal race with a more or less open field of contestants; a motor-cycle derby. 3. A stiff felt hat with a round crown and a narrow, curved brim. [After Edward Smith Stanley (1752-1834), 12th Earl of Derby, founder of the English Derby.]



derby

**de-reg-u-late** (dē-rēg'yū-lāt') *tr.v.* -lat-ed, -lat-ing, -lates. To decontrol. —**de-reg-u-la-tion** *n.*

**de-re-lict** (dē-rē-lik't) *adj.* 1. Neglectful of duty or obligation; remiss. 2. Deserted by an owner or guardian; abandoned. —*n.* 1. Abandoned property; esp. a ship abandoned at sea. 2. A homeless or jobless person; vagrant. 3. Law. Land left dry by a permanent recession of the water line. [Lat. *derelictus*, p.p. of *derelinquere*, to abandon.] —**de-re-lict-ly** *adv.* —**de-re-lict-ness** *n.*

**de-re-lic-tion** (dē-rē-lik'shən) *n.* 1. Willful neglect; as of duty. 2. Abandonment. 3. Law. a. A gaining of land by the permanent recession of the water line. b. The land thus gained.

**de-ride** (di-rīd') *tr.v.* -rid-ed, -rid-ing, -rides. To speak of or treat with contemptuous mirth. [Lat. *deridere*: *de-* (pejorative) + *ridere*, to laugh at.] —**de-rid'er** *n.* —**de-rid-ing-ly** *adv.*

**de-ri-gueur** (dā-rē-gēr') *adj.* Required by the current fashion or custom; socially obligatory. [Fr.]

**de-ri-sion** (di-rīzh'ən) *n.* 1. a. An act of deriding; ridicule. b. A state of being derided. 2. An object of ridicule; laughingstock. [ME *derisoun* < OFr. *derision* < LLat. *derisio*, Lat. *derisus*, p.p. of *deridere*, to deride.]

**de-ri-sive** (di-rī'siv, -ziv, -rī'siv, -rīz') *adj.* Mocking; scoffing. —**de-ri-sive-ly** *adv.* —**de-ri-sive-ness** *n.*

**de-ri-so-ry** (di-rī'sō-rē, -zō) *adj.* Densive.

**de-ri-vate** (dē-rā-vāt') *tr.v.* -vat-ed, -vat-ing, -vates. To derive.

**de-ri-va-tion** (dē-rā-vā-shən) *n.* 1. The act or process of deriving. 2. The condition or fact of being derived. 3. Something derived; derivative. 4. The form or source from which something is derived; origin. 5. The historical origin and development of a word; etymology. 6. Ling. The process by which new words are formed from existing words, chiefly by the addition of affixes to roots, stems, or words. 7. Math. A logical or mathematical process indicating through a sequence of statements that a result such as a theorem or a formula necessarily follows from the initial assumptions. —**de-ri-va-tion-al** *adj.*

**de-ri-va-tive** (di-rīvā-tiv) *adj.* 1. Resulting from derivation. 2. Copied or adapted from others: a derivative prose style. —*n.* 1. Something derived. 2. Ling. A word formed from another by derivation. 3. Math. The limit, as the increment in the argument of a function approaches zero, of the ratio of the increment in its value to the corresponding increment in the argument; the instantaneous rate of change of a function with respect to a variable. 4. Chem. A compound derived or obtained from known or hypothetical substances and containing essential elements of the parent substance. —**de-ri-va-tive-ly** *adv.* —**de-ri-va-tive-ness** *n.*

**de-ri-ve** (di-rīv') *v.* -rived, -riv-ing, -rives, -tr. 1. To obtain or receive from a source. 2. To arrive at by reasoning; deduce or infer: *derive a conclusion from facts.* 3. To trace the origin or development of (a word; for example). 4. Chem. To produce or obtain (a compound) from another substance by chemical reaction. —*intr.* To issue from a source; originate. [ME *deriven*, to be derived from < OFr. *deriver* < Lat. *derivare*, to derive: *de-*, away + *rivus*, stream.] —**de-ri-va-ble** *adj.* —**de-ri-va-r** *n.*

**derm** (dōrm) *n.* Variant of *derma*.

**derm-** *pref.* Variant of *derma-*.

**derm-skin** *adj.* Skin; covering; *blastoderm*. [Gk. *derma*, skin.]

**der-ma** (dūr'mā) *n.* Also *derm* (dōrm) or *der-mis* (dūr'mis) *n.* Anat. The corium. [NLat. < Gk. *derma*.]

**der-ma** (dūr'mā) *n.* Beef casing stuffed with a seasoned mixture of matzo meal or flour, onion, and suet, prepared by boiling, then roasting. [Yiddish *derme*, pl. of *darm*, intestine < MHG < OHG.]

**derma-** or **derm-** *pref.* Skin: *dermal*. [Gk. *derma*, skin.]

**der-ma-skin** *adj.* Skin, skin disease: *scleroderma*. [NLat. < Gk. *derma*, skin.]

**der-ma-bras-ion** (dūr'mā-brā'zhən) *n.* A surgical procedure designed to remove skin imperfections, such as scars, or wrinkles, through the abrasion of the frozen epidermis.

**der-mal** (dūr'māl) *adj.* Also *der-mic* (-mīk) *adj.* Of or pertaining to the skin.

**der-mat-** *pref.* Variant of *dermato-*.

**der-ma-ti-tis** (dūr'mā-tī'tis) *n.* Inflammation of the skin.

**der-mat-o-** or **der-mat-** *pref.* Skin: *dermatome*. [Gk. *derma*, skin.]

**der-mat-o-gen** (dūr'māt'ō-jən) *n.* Bot. The outer layer of meristem, from which the epidermis is formed.

**der-ma-toid** (dūr'mā-tō'id) *n.* Resembling skin.

**der-ma-to-lo-gy** (dūr'mā-tō-lō'jē) *n.* The medical study of the physiology and pathology of the skin. —**der-ma-to-log-i-cal** (-tō-lō'jē-kəl) *adj.* —**der-ma-to-log-ist** *n.*

**der-ma-tome** (dūr'mā-tōm) *n.* The lateral wall of a somite, from which the corium is formed.

**der-mat-o-phyte** (dūr'māt'ō-fīt, dūr'mā-tō-) *n.* Any of various fungi that cause skin disease. —**der-mat-o-phy-tic** (-fīt-ik) *adj.*

**der-ma-to-phy-to-sis** (dūr'mā-tō-fīt'ō-sīs) *n.* Athlete's foot.

**der-ma-to-plas-ty** (dūr'mā-tō-plās'tē) *n.* The use of skin grafts in plastic surgery to correct defects or replace skin loss.

**der-ma-to-sis** (dūr'mā-tō'sīs) *n., pl. -ses* (-sēs) *case.*

**der-matous** *suff.* Having a specified kind of: *dermatous*. [Gk. *derma*, *dermat*, skin.]

**der-mic** (dūr'mīk) *adj.* Variant of *dermat*.

**der-mis** (dūr'mis) *n.* Variant of *derma*.

**der-mo-** *pref.* Variant of *derma-*.

**der-nier** (dēr'nyā krē') *n.* The latest thing. [Fr.: *dernier*, last + *cri*, cry.]

**de-ro-gate** (dē-rā-gāt') *v.* -gat-ed, -gat-ing.

1. To take away; detract: *an error that will a reputation.* 2. To deviate from a standard or astray. —*tr.* To disparage; belittle. [Lat. *de-* to take away: *de-*, away + *rogare*, to ask.]

**de-ro-ga-tive** (dē-rōg'ā-tiv, dē-rā-gā-) *a*

**de-ro-ga-to-ry** (dē-rōg'ā-tōrē, -tōrē) *adj.* D

**de-rick** (dēr'ik) *n.* 1. A large crane for hois

heavy objects, consisting of a movable boot

cables and pulleys and connected to the ba

stationary beam. 2. A tall framework over il

oil well or other drilled hole, used to supp

port to hoist and lower pipe lengths. It

lows, hangman, after *Derick*, 16th-cent. En

**de-ri-ère** also **de-ri-ère** (dē-rē-ār) *n.* The

[Fr. < *derrière*, behind < OFr. *deriere*, in b

**de-ri-ing-do** (dēr'ing-dō) *n.* Daring spirit a

[ME < *dorring* do, daring to do.]

**de-ri-nger** (dēr'in-jər) *n.* A short-barreled p

bore. [After Henry Deringer, 19th-cent.

smith.]

**de-ri-s** (dēr'is) *n.* Any of various woody vi

*Derris*, of tropical Asia, whose roots yield i

< Gk. covering.]

**de-rish** (dēr'ish) *n.* A member of any of

orders of ascetics, some of which employ

and the chanting of religious formulas to i

to ecstasy. [Turk. *derish*, mendicant < Per

**DES** (dē'sēs) *n.* Diethylstilbestrol.

**de-sal-i-nate** (dē-sāl'ā-nāt') *tr.v.* -nat-ed, -na

desalinize. —**de-sal-i-na-tion** *n.* —**de-sal-i-n**

**de-sal-i-nize** (dē-sāl'ā-nīz') *tr.v.* -nized, -niz

remove salts and other chemicals from sea

water. —**de-sal-i-ni-za-tion** *n.*

**de-salt** (dē-sāl't) *tr.v.* -salt-ed, -salt-ing, -salt

**de-scant** (dē'skāt') *n.* 1. Also *dis-cant* (d'

ornamental melody or counterpoint sung o

musical theme. b. The highest part sung in

discussion or discourse on a theme. —*intr.*

**skant** (-cant-ed, -cant-ing, -cants. 1. To co

discourse: *I have now descanted at some ten*

*going to talk about.* (William Dean Howe

**cant** (di-skant'). *Mus.* a. To sing or play

sing melodiously. [ME < AN *descant* < L

*tus*, a refrain: Lat. *dis-*, apart + Lat. *canti*

of canere, to sing.] —**de-scant'er** *n.*

**de-s-cend** (di-sēnd') *v.* -scend-ed, -scer-

*intr.* 1. To move from a higher to a lo

slope, extend, or incline downward: *A*

*scended like a steep stair into the plain.* (

3. a. To come down from a source; derive

an old New England family. b. To pass thr

The house has descended in the family. 4.

descended to lies and flattery. 5. To arrive

or overwhelmingly: *summer tourists descen*

shore village. —*tr.* To move from a higher t

go down. [ME *descenden* < OFr. *descendre*

*de-*, down + *scandere*, to climb.] —**de-**

**scend-a-ble** *adj.*

**de-s-cen-dant** (di-sēn'dənt) *n.* 1. An indiv

from another. 2. Something derived from

earlier form. —*adj.* Variant of *descendent*

**de-s-cen-dent** also **de-s-cen-dant** (di-sēn'd

ing downward; descending. 2. Proceeding

an ancestor.

**de-s-cend-er** (di-sēn'dər) *n.* *Printing.* The p

ters, such as g, p, or y, that extends belo

most lower-case letters.

**de-s-cent** (di-sēnt') *n.* 1. The act or an inst

ing. 2. A way down. 3. A downward in

slope. 4. a. Hereditary derivation; lineage:

*descent*. b. The fact or process of comin

derived from a source: *can trace the descen*

*old picaresque tales.* c. Development in f

during transmission from an original sou

tion of a specific lineage. 6. Law. Transfe

by inheritance. 7. A lowering or decline

level. 8. A sudden attack; onslaught. [ME

*dre*, to descend.]

**de-s-cram-ble** (dē-skram'bəl) *tr.v.* -bled, -bl

code.

**de-scribe** (di-skrib') *tr.v.* -scrib-ed, -scrib-in

give a verbal account of. 2. a. To transmi

impression of with words. b. To presen

of. 3. To trace or draw the figure of; oi